



## Medical Director's Corner

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*How can the EMS provider in the field impact this potentially deadly condition when the treatment ultimately depends on such things as antibiotics and a higher level of care at a hospital?*

### Recognition

You can't treat what you can't see. It's important to remember that most diseases, sepsis included, exist a long a spectrum that begins with early, perhaps subtle, signs and symptoms and progresses to the most severe stages. Early recognition of potential sepsis and early septic shock can save lives. When the situation suggests sepsis, begin to consider where the source of the infection may be. It could be obvious, say a wound or the like, but it may be more subtle, for example a urinary infection in the elderly.

### Septic Shock Field Criteria

The following has been shown to be valid criteria for suspecting septic shock in the field. It uses low End-tidal CO<sub>2</sub> as a marker for septic shock:

- Suspected infection.
- Two or more of the following:
  - Temperature >38C (100.4 F) or < 36 C (96.8 F) or clinically apparent.
  - Respiratory Rate >20 breaths/minute.
  - Heart Rate >90 beats/minute.
- ETCO<sub>2</sub> <= 25 or systolic BP < 90.

### Temperature

Measuring the temperature of the patient does help in categorizing patients as having sepsis. Keep in mind that the patient may have a temperature but the criteria is also met when the patient is relatively hypothermic (>100.4, <96.8). Admittedly, finding thermometers that are accurate and practical in the field is a challenge but your clinical impression that the patient is running a fever is valid as well.

### Treatment

Field treatment includes addressing and treating abnormal vital signs and may include initiating intravenous fluids. Patients may have abnormal blood sugar, either high or low and it is reasonable to check as part of your workup if it is within your scope. Keep in mind that it is very common for pediatric group to become hypoglycemic with severe medical conditions.

### You can affect care at the hospital!

Notifying the hospital, preferably pre-arrival, that you have identified that the patient meets criteria for sepsis (and particularly if the patient meets the criteria for septic shock) can help the emergency department prioritize the evaluation of your patient and avoid delays in care that can result in bad outcomes. [Sample "Sepsis Alert" utilizing capnography and/or blood pressure.](#)